

# PATENT ABSTRACTS OF JAPAN

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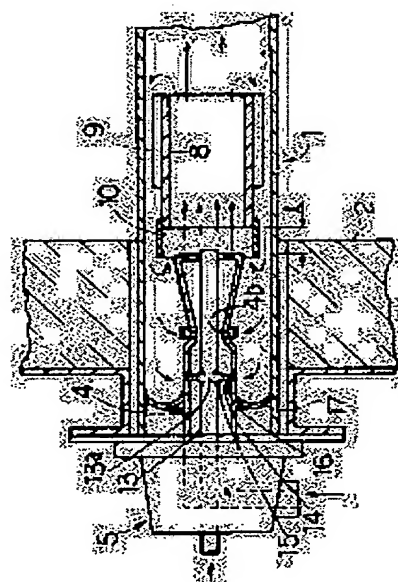
## (54) RADIANT TUBE HEATING DEVICE

### (57)Abstract:

**PURPOSE:** To make the mixing of fuel, air, combustion exhaust gas etc. effective and raise the flammability by making the combustion-exhaust gas recirculate by itself and supplying the same in a multistage way.

**CONSTITUTION:** When fuel is jetted out through a fuel nozzle 13, the pressure thereof turns low by a venturi section near the 3rd supply part 14, causing an induction process. By this, the combustion exhaust gas is supplied from the 1st and 2nd supply parts 10 and 4b as well as the 3rd supply part 14 through a recirculation channel 9. That is, the combustion exhaust gas is supplied from an induction tube 16 through a pipe-header 15 and a pass hole 13a into the fuel nozzle 13. Accordingly, the fuel is mixed with the combustion exhaust gas of high temperature within the fuel nozzle 13, being changed in quality and jetted.

Afterwards, the jetted fuel is mixed with the air containing the combustion exhaust gas supplied from the 2nd supply part 4b and further with the combustion exhaust gas supplied from the 1st supply part 10, and then is burnt.



## LEGAL STATUS

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